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AUTHOR Petruk, Milton W.
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ABSTRACT

Data for this study, which was conducted to provide a status report describing the nature and extent to which microcomputers have been introduced into schools in Alberta, were collected by a 2-phase mail survey. Results showed that nearly 12 percent of the schools now have one or more microcomputers. The majority of the units are Commodore PET (45 percent), Apple II (31 percent), and Radio Shack TRS 80 (19 percent); they appear to be uniformly distributed across all grade levels. The most frequently reported uses of the microcomputer involved the teaching of computer literacy and computer assisted instruction. The majority of microcomputer users expressed the need for additional equipment, software, and training. While a relatively small number reported that they had no interest in introducing microcomputers into their schools, the majority that do not now have a microcomputer are anticipating getting one or more in the future. However, a large proportion of this group felt that they did not know enough about microcomputers to anticipate what their needs might be. The remainder tended to report a strong need for information about both equipment and programs, and a strong need for additional training. Copies of the questionnaires used are appended. (Author/LLS)

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Microcomputers in Alberta Schools

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Final Report

funded by

Alberta Education
Planning and Research
9th Floor, Devonian Building
Edmonton, Alberta

by

Dr. Milton W. Petruk
Department of Industrial and Vocational Education
Faculty of Education
University of Alberta
Edmonton, Alberta

February 1981

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Table of Contents

Introduction 1

The Population 3

The Instrument 3

Findings 5

Phase I 5

Table I

Student population of schools having Microcomputers ...6

Table II

Location of schools having microcomputers 7

Geographical Distribution of Microcomputers in Alberta

Schools December 31, 1981 8

Phase II - Schools Having Computers 9

Table III

Brands of Microcomputers 10

Quality of Programs 10

Suitability of Programs 11

Need for Programs 11

Uses 12

Table IV

Uses of Microcomputers in Alberta School 13

Phase II - Schools having no Microcomputers 15

Summary 18

Conclusions and Recommendations 20

Appendix A 23
Appendix B 24
Appendix C 25
Appendix D 26

Introduction

The last half of the last decade witnessed the introduction of microcomputers into the marketplace. Because of their small size, low cost and powerful computing ability they have found their way into a large variety of applications which have included small business and industry as well as the home.

Many schools have begun to recognize the impact that the introduction of microcomputer technology has had on society and have tried to respond to that impact by introducing microcomputers into the classroom. Alberta schools are no exception. However, introduction of microcomputers in Alberta schools has generally occurred as the result of the initiative of enthusiastic teachers, principals or, in some instances school boards. There has been no specific impetus in this area provided by Alberta Education. Therefore, the nature and extent to which microcomputers have been introduced into Alberta schools has been sporadic.

This is a report on a survey that was conducted in Alberta schools during the latter part of 1980. It documents the extent to which microcomputers have already been introduced in Alberta schools, and describes some of the ways in which Alberta schools are using microcomputers.

The report also identifies some of the areas in which teachers feel they need assistance.

It is becoming increasingly evident that this decade will be characterized by the infusion of microelectronics into all aspects of society. The outcomes of this infusion are not yet clear, nor will they be for many years to come. It is clear however, that no element of our society will go untouched. The initial impact of microcomputers on education has already been felt and even greater impact has yet to come. Educators should view this impact positively, as an opportunity to utilize this technology as a tool to help them improve the quality of education.

The Population

According to the records of Alberta Education, there are a total of 1446 schools in Alberta which fall under the jurisdiction of the Alberta School Act. All of these schools constituted the population for this survey. Prior to the mailing of the survey, superintendents of all of the school jurisdictions received a letter from the Deputy Minister of Education advising them that the survey would be conducted and soliciting their cooperation (Appendix A). All other correspondence related to this survey was directed to the principal of each school.

The Instrument

The instrument consisted of a mail survey which was conducted in two phases. Phase one of the survey was designed to verify the accuracy of the mailing list and to identify which schools were actually using microcomputers. Additionally, this phase of the survey also collected information about the grade level and size of the school. (See Appendix B).

Two versions of phase II of the survey were developed. One version (Appendix C) was mailed to schools that reported having one or more microcomputers in the school. This version was designed to determine how many microcomputers

the school had, what their brand names were, what kinds of programs they were being used with, and what kinds of needs or problems had arisen as a result of the introduction of microcomputers.

The other version (Appendix D) of phase II of the survey was mailed to schools that reported having no microcomputers in phase I. This version of phase II was designed to determine whether schools that did not yet have microcomputers were anticipating acquiring them in the future. In addition, it also sought to determine the kinds of needs schools anticipated might arise as a result of the introduction of microcomputers. Finally, the survey sought to determine the anticipated purpose of acquiring microcomputers.

Findings

Phase I

Early in October of 1980, a copy of phase I of the survey was mailed to the principal of every school in Alberta which fell under the jurisdiction of the Alberta School Act. A total of 1446 surveys were mailed. Approximately three weeks after this survey was mailed, a follow-up letter was sent to those schools that had not responded. The total number of responses received to phase I of the survey was 1186 (82%). The remaining 260 (18%) failed to respond to either the survey or the follow-up.

A total of 136 (11.5%) of the 1186 principals responding to phase I of the survey reported having one or more microcomputers in their school. The remaining 1050 (88.5%) reported that they were not presently using microcomputers in their schools. A small number (less than 1%) indicated that their schools were provided to serve the needs of a religious minority which didn't even believe in the use of calculators.

Grade level

An analysis of the responses according to grade level proved to be somewhat difficult because many different combinations of grade levels were reported. Therefore,

schools were divided into three categories according to the grades that were represented in that school. It was found that:

59 of the schools included grades 10-12;

66 of the schools included grades 7-9; and

47 of the schools included grades K-6.

The sum of these numbers is greater than 136 because schools which included grade levels from more than one category, would be counted in more than one category. For example, a school that included students in all grades, K-12 would be counted once in each of the three categories.

Size

The responses of all 136 schools that reported having one or more microcomputers in the school were analyzed by size. Following are the results.

Table I

Student population of schools having Microcomputers

Size	Number of schools
900 and up	19 (14%)
600 - 899	15 (11%)
300 - 599	59 (43%)
below 300	31 (23%)
unreported	12 (9%)
Total	136

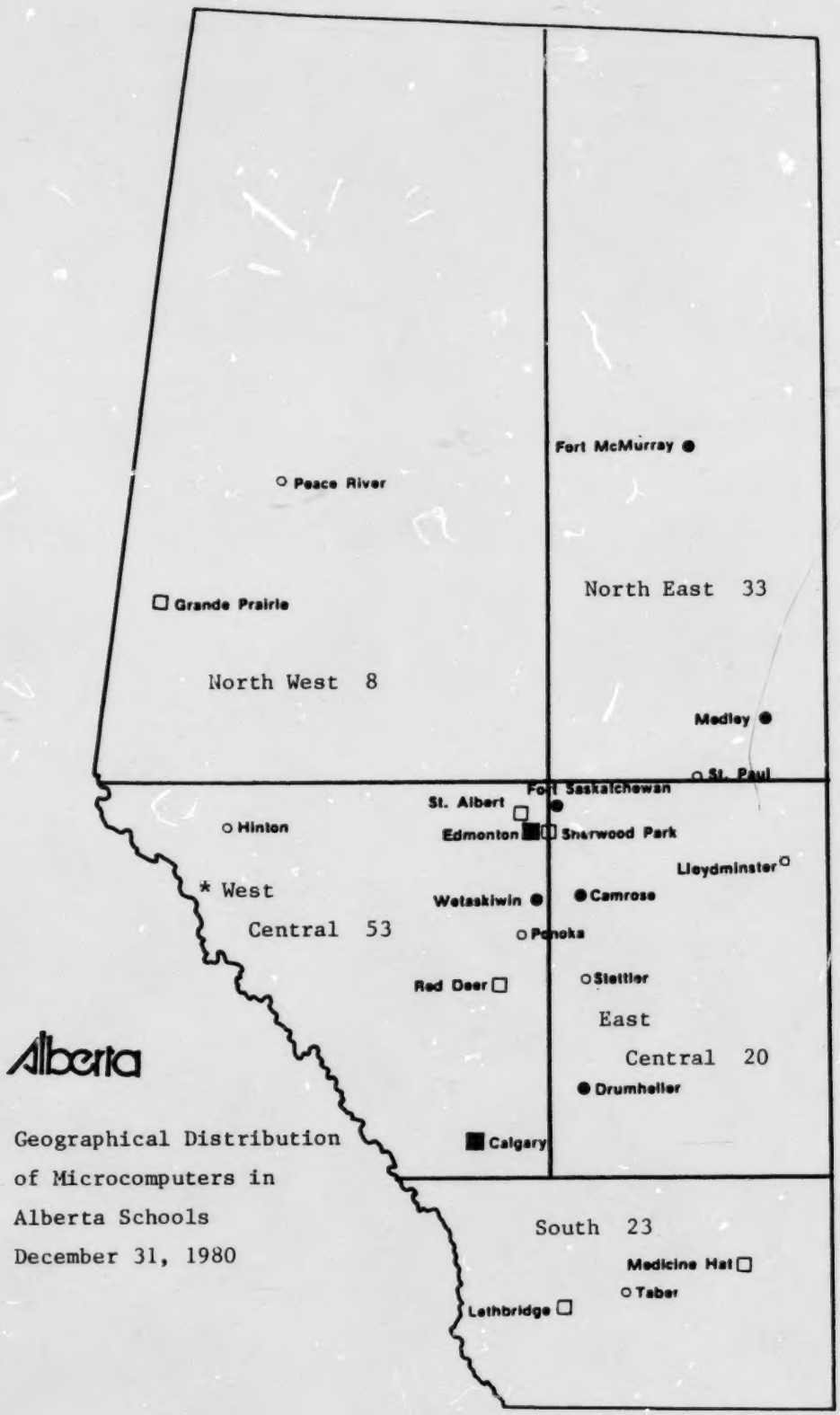
Location

An analysis of responses by location showed the following:

Table II

Location of schools having microcomputers

Location	Number of schools
Edmonton	22 (16%)
Calgary	23 (17%)
Other	91 (67%)
Total	136



Alberta

Geographical Distribution
of Microcomputers in
Alberta Schools
December 31, 1980

* Not including

Edmonton = 58
Calgary = 41
Red Deer = 20

Phase II - Schools Having Computers

All respondents who indicated in phase I that their schools were using microcomputers were asked to list the names of the teachers in the schools who were actually using microcomputers. Subsequently, phase II surveys were prepared for each of the individuals who were named in phase I of the survey. These surveys were then mailed to the respective principals and each principal was asked to see that the phase II surveys were completed by the designated individuals and returned. In other words, respondents to phase II of the survey were primarily teachers, however, in a few cases, the principal was also designated as a microcomputer user, and therefore a small number of phase II surveys were completed by principals.

In order to obtain a count of the number and type of microcomputers being used in each school, respondents to this version of phase II of the survey were asked to indicate how many microcomputers they were responsible for and the brands of these microcomputers. The results showed the following:

Table III

Brands of Microcomputers

Brand	Number	Edmonton	Calgary	Others
Commodore PET	114	28	21	65
Apple	79	22	17	40
TRS 80	49	3	2	44
Others	14	5	1	8
Total	256	58	41	157

In response to the question involving which language was used most frequently, all who responded indicated that they were primarily using BASIC. Most did not use other languages. Respondents were also asked to indicate the source of the programs they were using. Over 20% (21) of those who responded (98) indicated that all of the programs they used were purchased. Less than 15% of of those who responded indicated that all of the programs they were using were written by them.

Quality of Programs

Respondents were asked to rate the overall quality of the educational programs currently (commercially) available for microcomputers. While some respondents indicated they felt that they had insufficient knowledge of what was

available to answer this question, over 60% of the 102 people that responded rated the overall quality of educational programs as 1 or 2 on a 5 point scale. A rating of 1 corresponded to a verbal description of "very poor" while a rating of 5 was described as "outstanding". Approximately 11% rated the overall quality of educational programs as 4 or 5 on the same scale.

Suitability of Programs

Respondents were asked to rate the suitability of educational programs currently available on the market. Nearly 72% of the 102 people who responded rated the suitability as 1 or 2 on a 5-point "very poor" - "outstanding" scale. Just under 10% of the respondents rated program suitability as 4 or 5.

Need for Programs

Respondents were asked to rate the need for educational programs for microcomputers on a 5-point scale, where a numerical designation of 1 was verbally described as "no need" and a numerical designation of 5 was described as "strong need". Just over 95% of the 109 people who responded to this item rated the need for more educational programs related to the subject areas in which they taught as either 4 or 5 this 5 point scale. None of the respondents rated this item as 1 or 2.

Uses

Respondents were asked to indicate ways in which they were currently using their microcomputers. Six ways in which microcomputers are commonly used in schools were used as the basis for structuring the questions posed in this section. These included use of the microcomputer for

1) Teaching computer literacy
2) Computer assisted instruction
3) Computer managed instruction
4) Business education
5) School administration tasks
6) Technical education.

The results are summarized in table IV.

Table IV

Uses of Microcomputers in Alberta School

Use	% of Responses indicating use
Computer literacy	60
Computer assisted instruction	39
Computer managed instruction	12
Business educaion	15
School administration	25 *
Technical education	4

* the majority of respondents in this category noted that their "administrative" application consisted of computing class grades and averages.

Since some respondents indicated that their microcomputer was being used for several purposes, the percentages in table IV do not sum to 100%.

In each of the above uses, respondents were asked to provide an indication of the type and number of classes and students receiving instruction on microcomputing. The data was not analyzed because of the wide diversity of reports. For example, some teachers included students who participated in an "after school" computer club. Others included only students who were receiving formal instruction, etc. It was clear from this portion of the

survey that there is a very wide variety of ways in which teachers are weaving the microcomputer into various school activities and that accurate documentation of these is well beyond the scope of this study.

Finally, respondents were asked to provide an indication of their needs (on a 5-point scale) in relation to equipment, programs, and training. A rating of 1 on this set of scales was described as "no need" whereas a rating of 5 was described as a "strong need". 83% rated the need for equipment as 4 or 5 on a 5-point scale while only 7% rated the need for equipment as 1 or 2. The need for programs was rated as 4 or 5 by 95% of the respondents while nobody rated this need as either 1 or 2. Finally, 87% rated the need for additional training as 4 or 5 while 3% rated this need as a 2 and nobody rated it as a 1. Many of the respondents wrote comments in a space provided. Most frequently these comments indicated that there was a need for the Alberta Department of Education to provide leadership and direction (and some even suggested funding) in relation to the introduction of microcomputers into schools.

Phase II - Schools having no Microcomputers

Of the 1186 people responding to phase I of the survey, 1050 reported that they were not using microcomputers in their schools. This group received a different form of phase II survey than the previously described group who reported having one or more microcomputers in the school. The purpose of this form of the phase II survey was to determine whether the respondents anticipated obtaining microcomputers in the future. The total number of phase II surveys returned by this group was 877 or 83% of the 1186 that were mailed. Approximately 5% of phase II respondents indicated that they would be purchasing one or more microcomputers. A few wrote in additional comments to indicate that they were already in the process of placing an order. Nearly 30% of this group indicated that they would not be purchasing a microcomputer. A few of the respondents in this group added unsolicited comments indicating reasons why they would not be buying a computer. Reasons ranged from the fact that their school was operated for a religious minority who didn't believe in computers, that they were a very small school and would never be able to afford it, or that they didn't think a computer had any place in the school.

Nearly 65% of the respondents in this group indicated

that they anticipated purchasing a microcomputer at some future time, but that such a purchase was dependent on some future allocation of funds for this purpose.

The second part of this survey asked respondents who anticipated acquiring a microcomputer tc indicate their need in relation to three areas:

1) need for information about equipment
2) need for information about computer programs
3) need for additional training.

Each of these needs was represented on a 5-point scale in which 1 was designated as "no need" and 5 was designated as "strong need". Nearly 40% of the group who indicated that they were planning to puchase a computer did not respond to this portion of the survey. While the majority of this group did so without comment, a small number provided unsolicited comments that indicated that they didn't know enough about the topic to be able to respond to the question.

Just over 5% of this group responded with 1's to all three questions relating to needs, indicating that they felt no need for any of these. Just over 20% responded with 5's to all three questions indicating a strong need in all three areas. The remainder provided a variety of responses, generally indicating relatively high degree of need in all three areas. A few wrote in unsolicited responses

indicating the need for funds earmarked for this purpose and for some clear direction from the Alberta Department of Education regarding implementation of microcomputers in Alberta schools.

The final part of this survey asked respondents to indicate the purpose for which the microcomputers might be used in their schools. Less than 5% of the respondents in this group completed this part of the survey. Furthermore, a number of respondents wrote in unsolicited comments to indicate that they didn't feel that they could respond to this part of the survey because of insufficient knowledge about microcomputers.

Summary

This study was conducted to provide a status report describing the nature and extent to which microcomputers have been introduced into Alberta schools. Data for the study was collected by mail survey of every school in Alberta.

The results showed that nearly 12% of Alberta schools now have one or more microcomputer. The majority of the units are Commodore PET (45%), Apple II (31%) and Radio Shack TRS 80 (19%). They appear to be uniformly distributed across all grade levels. The most frequently reported uses of the microcomputer involved the teaching of computer literacy and computer assisted instruction. The majority of microcomputer users in the schools expressed the need for additional equipment, software and training.

While a relatively small number of schools reported that they had no interest in introducing microcomputers into their school, the majority of schools that do not now have a microcomputer are anticipating getting one or more in the future. However, a large proportion of this group felt that they did not know enough about microcomputers to anticipate what their needs might be. The remainder tended to report a strong need for information about both equipment and programs as well as a strong need for additional training.

Many felt the need for leadership, direction and funding from the Alberta Department of Education.

Conclusions and Recommendations

It is clear that even though the introduction of microcomputers has occurred over a very short 3-year time span, a substantial segment of the educational community in Alberta has been able to respond to this technological impact by providing both equipment and programs on their own initiative. This fact speaks to the strength of both the administrative structure and the people in it, and that the flexibility exists for this to happen. On the other hand, it is clear that there is a large part of the educational community that has not yet taken the initiative and in many cases it is because they feel they need some help.

The Alberta Department of Education can provide the needed assistance in a variety of ways:

1. Information packages about educational uses of microcomputers could be assembled and distributed to schools.
2. Workshops could be organized in which both administrators and teachers could be made aware of the role of microcomputers in education. Such workshops could involve the use of mobile vans which could travel to schools to give teachers and administrators an opportunity to actually see and operate the microcomputers.
3. Guidelines for acquisition of microcomputer hardware

could be prepared and distributed.

4. Alternately, a structure similar to one in British Columbia or Minnesota could be established to facilitate the quantity purchase of microcomputers at a discount for resale to schools.
5. A facility for the acquisition, documentation, cataloging and/or distribution of educational microcomputer software (courseware) could be established. Perhaps existing facilities such as those already established for audio-visual media could be expanded to include microcomputers.
6. A structure for the development of new instructional materials pertinent to the Alberta curriculum for use in Alberta schools could be established. Again, we could look at a structure similar to that in British Columbia in which teachers are given an opportunity to become involved in the development of new materials for use with microcomputers.
7. Additional training for teachers is perhaps the most critical element. A variety of courses ranging from short, one-day seminars to University credit courses would enable teachers to obtain the necessary skills and knowledge needed to make effective use of the microcomputer as an instructional tool. Other courses could provide further depth for those teachers who would

like to become involved in the development of instructional materials for use with the microcomputer.

8. Curriculum committees at all levels should be advised to consider ways in which microcomputers could be introduced into school curricula.

It is clear that the initial impact of the microcomputer has already reached the school. The challenge now is to find ways of guiding this impact to insure that the maximum potential benefit offered by this new technology is realized by the students and teachers of Alberta schools.

Appendix A

October 1st, 1980

To the Superintendent

Re: Microcomputers in Alberta Schools

During the last half of the last decade, computer manufacturers have begun manufacturing and marketing microcomputers. While microcomputers have generally been aimed at small businesses and at the home hobby market, increasing numbers of schools have purchased them and are using them in a variety of ways.

In recent months, Alberta Education has been receiving an increasing number of requests from schools to provide general direction with respect to microcomputers in Alberta schools. However, more information is needed regarding the current status of microcomputers in schools. Accordingly, Alberta Education has asked Dr. Milt Petruk of the University of Alberta to conduct an exhaustive mail survey of Alberta schools in an effort to determine how many schools have microcomputers, what they are being used for, and what future plans schools have for acquiring additional microcomputers.

I would like to sincerely thank both you and your staff for taking the time to participate in this survey. If you have any further questions about any aspect of this survey please do not hesitate to call Dr. Petruk at 432-5363 or Dr. Jim Thiessen of Alberta Education at 427-8225.

Sincerely,

E. K. Hawkesworth
Deputy Minister

Appendix B

October 7, 1980

Dear Colleague:

Re: Microcomputers in Alberta Schools

During the last half of the last decade, computer manufacturers have begun manufacturing and marketing microcomputers. While microcomputers have generally been aimed at small business and at the home hobby market, increasing numbers of schools have purchased them and are using them in a variety of ways.

In recent months, the Alberta Department of Education has been receiving an increasing number of requests from schools to provide general direction with respect to microcomputers in Alberta schools. However, at present, there is little or no information available with respect to the current status of microcomputers in schools. Accordingly, Alberta Education has asked me to conduct an exhaustive mail survey of Alberta schools in an effort to determine how many schools have microcomputers, what they are being used for, and what future plans schools have for acquiring additional microcomputers.

At this time, I am trying to identify which schools presently have one or more microcomputers in the school. Later in October, I will be writing to you again, asking for more information. Would you therefore take a moment to complete the attached questionnaire and return it to me. The superintendent of your school system has recently received a letter from the Deputy Minister of Education advising him of this survey.

On behalf of myself and Alberta Education, I would like to sincerely thank you for taking the time to participate in this survey. I am confident that in addition to assisting Alberta Education, the information that results from this survey will ultimately be of some benefit to you and your staff. If you have any further questions about any aspect of this survey, please do not hesitate to call me at 432-5363 or Dr. Jim Thiessen of Alberta Education at 427-8225.

Sincerely,

Dr. M. W. Petruk
Professor

MWP/e

September, 1980
Microcomputers in Education Survey
PHASE I
TO BE COMPLETED BY THE PRINCIPAL

School Profile:

a. Please insert the name, and verify the address and telephone number of the principal as printed below. If not correct, kindly make necessary corrections

Principal's name _____

b. Please circle the grades taught in this school:

1 2 3 4 5 6 7 8 9 10 11 12

c. Please indicate the total number of students enrolled in this school on September 30, 1980. (Estimated number is sufficient)
..... ___ students

d. Please indicate the total number of instructional staff in this school on September 30, 1980. (Include principals, assistant principals. librarians, counsellors, etc.)..... ___ instructional staff

Information about Microcomputers A microcomputer is a small computer which is equipped with some type of a keyboard, similar to a typewriter and some type of display, such as a cathode ray tube or a printer. Generally a microcomputer is equipped with a "memory" capable of storing programs and data. It sells for approximately one to five thousand dollars. Some examples of microcomputers are APPLE II, PET and Radio Shack.

While recent models of desk calculators have increased in sophistication to the point where they can almost be thought of as small computers, please do not consider them as microcomputers for purposes of this survey.

a. Do you or any members of your teaching staff use a microcomputer in this school provided by the school or school system to perform any instructional or administrative tasks whatever?
..... no
..... yes - if yes, please list their names on reverse.

PLEASE TURN OVER

Names: .....

.....

.....

.....

.....

b. Do you or any members of your teaching staff use a microcomputer in this school not provided by the school (eg. owned by the teacher) to perform any instructional or administrative tasks whatever?

..... no

..... yes- if yes, please list their names below.

Names: .....

.....

.....

.....

.....

Notes:

1) Upon return of this survey you will receive Phase II of the survey.

2) Sufficient copies of Phase II of the survey will be provided so that individuals whose names you list above can participate in it.

3) If you have any questions about this survey, please telephone Dr. M. W. Petruk at 432-5363.

4) After completion of this survey, return it in the enclosed envelope to:

Dr. M. W. Petruk, Professor
Industrial and Vocational Education
University of Alberta
Edmonton, Alberta, T6G 2G5.

Appendix C

November 1, 1980

Dear

Re: Microcomputers in Alberta Schools

Thank you for responding to phase I of our survey. At this point in time, we have had over 1000 responses to phase I and they are still coming. This certainly indicates that there is a high level of interest in this subject.

Since you indicated in Phase I that teachers in your school are currently using microcomputers, I have prepared phase II surveys for each of these teachers to complete. Would you kindly arrange for these teachers to complete the surveys and return them to me.

Thank you once again for your participation. I can assure you that the information that you have provided will be of great value for future planning in this area.

Sincerely,

M. W. Petruk
Professor

MWP/e

Dear

Re: Microcomputers in Alberta Schools

During recent years, increasing numbers of schools have been requesting funds for the purchase of microcomputers for schools. Many teachers are looking to Alberta Education to provide direction in relation to growth in this area. Alberta Education has asked me to conduct a survey to dermine the nature and extent to which microcomputers are currently being used in Alberta schools.

Your principal has indicated that you are currently using microcomputers in your teaching. Would you therefore please take a few minutes to complete the enclosed survey, and after you have completed it, return it to your principal.

On behalf of myself and Alberta Education, I would like to sincerely thank you for taking the time to participate in this survey. I am confident that in addition to assisting Alberta Education, the information that results from this survey will ultimately be of benefit to you. If you have any questions about any part of this survey, please call me at 432-5363.

Sincerely,

Dr. M. W. Petruk
Professor

Microcomputers in Education Survey

PHASE II

TO BE COMPLETED BY:

Please note that for the purposes of this survey, a microcomputer is defined as a small computer which is equipped with some type of keyboard, similar to a typewriter and some type of display, such as a cathode ray tube or a printer. Generally a microcomputer is equipped with a "memory" capable of storing programs and data. It sells for approximately one to five thousand dollars.

While recent models of desk calculators have increased in sophistication to the point where they can almost be thought of as small computers; please do not consider them as microcomputers for purposes of this survey.

1. Equipment

   a. How many microcomputers do you have for which you are

      primarily responsible? . . . . . _____ microcomputers

   b. Write down the brand names of these microcomputers, stating how many of each brand you have. For example, if you have 3 APPLES, you would show this as APPLE (3):

      _____

      _____

      _____

   c. Are you anticipating that you will buy additional microcomputers during this school year?

      _____no

      _____yes - if yes.

      Please list the brand names of the microcomputers you think you will buy, indicating the quantity of each in parentheses.

      _____

      _____

      _____

PLEASE TURN OVER PAGE

2. Programs - (courseware and/or software)

a. Which programming language do you use most frequently?

_____language.

b. List other computer languages that you also use:

_____.

c. What proportion of the programs that your students use were purchased?

_____purchased.

d. What proportion of the programs that your students use were written by you?

_____written.

e. Rate the overall quality of educational programs currently available on the market.

very poor 1 2 3 4 5 outstanding

f. How suitable are currently available educational programs in your application.

unsuitable 1 2 3 4 5 very suitable

g. Is there a need for more educational programs related to the subject areas in which you use the microcomputer?

little or no need 1 2 3 4 5 critical need

3. Uses

Below are described a number of purposes for which teachers have frequently reported that they use microcomputers. Answer the questions related to each purpose as it applies to your teaching situation.

a. Computer literacy - use of the microcomputer to teach general knowledge about how they are used in society.

_____ does not apply to me

_____ I teach computer literacy

Grade level(s) taught _____ grades

total number of classes taught _____ classes

total number of students taught _____ students

Comments _____

_____

_____

PLEASE GO ON TO NEXT PAGE

b. Computer assisted instruction - students learn subject matter by interacting with a program on a microcomputer.

_____ does not apply to me

_____ I use my microcomputer for CAI

Grade level(s) taught _____grades

subject matter taught _____

_____.

Total number of classes taught _____ classes

Total number of students taught _____ students

Comments _____

c. Computer managed instruction - student activities are directed by some form of computer program.

_____ does not apply to me

_____ I use my microcomputer for CMI

Grade level(s) taught _____ grades

course(s) taught _____

Total number of classes taught _____classes

Total number of students taught _____students

Comments _____

d. Business education - computer programming - word processing - accounting - payroll, etc.

_____ does not apply to me

_____ I use my microcomputer for business education

Grade level(s) taught _____ grades

course(s) taught _____

Total number of classes taught _____ classes

Total number of students taught _____ students

Comments _____

_____

PLEASE TURN OVER PAGE

e. School administrative tasks - attendance - budgets - address file - data base management

_____ does not apply to me

_____ I use my microcomputer for administration

Comments _____

f. Technical education - how computer circuits function how to build and repair microcmputers

_____ does not apply to me

_____ I use my microcomputer for technical education

grade level(s) taught _____ grades

courses taught _____

_____

Total number of classes taught _____ classes

Total number of students taught _____ students

Comments _____

4. Needs

Rank your needs in relation to microcomputers on the scales below:

a. No further need for equipment 1 2 3 4 5 strong need for additional equipment

b. No further need for programs 1 2 3 4 5 strong need for additional programs

c. No need for additional training 1 2 3 4 5 strong need for additional training

d. Other needs _____

_____

_____

_____

_____

PLEASE RETURN TO YOUR PRINCIPAL

Appendix D

November 10, 1980

Dear

Re: Microcomputers in Alberta Schools

Thank you for responding to phase I of our survey. At this point in time, we have had over 1000 responses to phase I and they are still coming. This certainly indicates that there is a high level of interest in this subject.

Since you indicated in phase I that none of the teachers in your school are currently using microcomputers, I would like you to complete phase II of the survey which is enclosed. This phase is intended to determine what your future needs in this area are likely to be.

Thank you once again for your participation. I can assure you that the information that you have provided will be of great value for future planning in this area.

Sincerely,

Dr. M. W. Petruk
Professor

MWP/e

Microcomputers in Education Survey - Phase II

TO BE COMPLETED BY:

Please note that for the purposes of this survey, a microcomputer is defined as a small computer which is equipped with some type of a keyboard, similar to a typewriter and some type of display, such as a cathode ray tube or a printer. Generally a microcomputer is equipped with a "memory" capable of storing programs and data. It sells for approximately one to three thousand dollars.

While recent models of desk calculators have increased in sophistication to the point where they can almost be thought of as small computers, please do not consider them as microcomputers for purposes of this survey.

1. During the current school year, do you anticipate facing a need for microcomputers in your school?

___no

___yes, I will be purchasing one or more

___yes, I anticipate that I will be purchasing one or more at some time in the future pending the allocation of necessary funds.

2. Needs

If you anticipate that you will be acquiring a microcomputer for your school at some time in the future then rank your needs in relation to microcumputers on the scales below:

a.	No need for information about microcomputer equipment	1 2 3 4 5	strong need for information about microcomputer equipment
b.	No need for information about computer programs	1 2 3 4 5	strong need for information about computer programs
c.	No need for additional training	1 2 3 4 5	strong need for additional training

3. Purpose
Below are described a number of purposes for which teachers have frequently reported that they use microcomputers. Rate the priority of each of these on a 5 point scale (1 = lowest and 5= highest) for your school.

a. Computer literacy-general knowledge about computeres and how they are used in society 1 2 3 4 5

b. Computer assisted instruction. Students learn subject matter by interacting with a program on a microcomputer 1 2 3 4 5

c. Computer managed instruction. Student learning activities are directed by a computer 1 2 3 4 5

d. Business Education-computer programming word processing accounting-payroll,etc. 1 2 3 4 5

e. School administration -attendance, budget address files, data base management 1 2 3 4 5

f. Technical Education - how computer circuits operate - how to build and repair microcomputers 1 2 3 4 5

4. Other needs
On the space provided, please identify any other needs you might have in relation to the introduction of microcomputers into your school.

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Thank you for your cooperation. After completion of this survey please return it in the enclosed envelope to:

Dr. M. W. Petruk, Professor
Industrial and Vocational Education
University of Alberta
Edmonton, Alberta, T6G 2G5.